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*M. E. McIVER, Editor*

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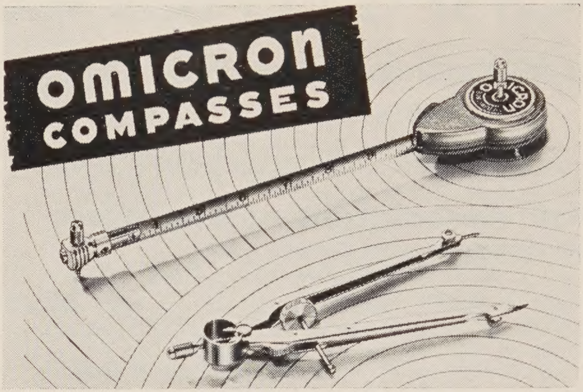

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# *Fraternalism—The Foundation*

**M. E. McIver, Editor**

American Association of Engineers has long been known as "the ideal at became an institution." Every member of A.A.E. is devoted to the eal "unity in the engineering profession" but there is not the same unanim- y in the members' conception of the institution which embodies the ideal. o some of A.A.E.'s members the institution is a non-profit corporation which they as stockholders at least give allegiance to the ideal. These e the executive engineers who steadily support the organization by paying es, but who seldom participate in activities which advance the ideals of e Association.

A larger group, looking upon A.A.E. as a true association rather than a rporation, work together effectively in chapters or national committees. here is still another type of member who regards the association as a fra- rnity and who gives to it a warmly personal devotion without which this ganization could not have survived inner conflicts, wars, depressions, d other vicissitudes. Five such members within this year have been st to A.A.E. by the only force that could ever have severed their ties ith the organization, death. Their passing is poignantly felt by officers, embers, and the staff of the Association.

Harry O. Garman, member of A.A.E. since 1917, was one of the men ho helped to define the ideal of this association and to shape the institu- n which embodies the ideal. He was one of the early presidents of the ganization who knew that the ideal of "unity" must not be synonomous ith "pressure"—although the term "pressure group" had not been coined that time. Intelligently aware of the economic plight of young engineers those days and unequivocally committed to the idea that engineering laries should be commensurate with service rendered, he was equally m in his conviction that "compensation can be raised to higher levels by aking use of the natural laws of social and industrial economics and not artificial and unnatural means of force."

Inasmuch as the statement was made in 1922, when as president of the ssociation he addressed the 6th national convention of A.A.E., in the otation which follows there is now apparent a prophetic quality—

"There is in our country a sinister element that desires to creep in be- een the men who work with their hands and the men who think and plan r the men who work with their hands. The same influence that drove the ains, experience, and ability out of Russia is busy raising prejudice here."

Mr. Garman lived to see his prophecy in some degree confirmed by the sunity which stems from the theory that "employee" and "employer" gineers have different and inherently conflicting interests. He has seen A.E. hold fast to his teachings against the advocates of "pressure groups" d pressure tactics. A.A.E. still believes with Mr. Garman (and the rds are quoted from his 1922 address) that

"The world has never rewarded those who are continually asking 'What is there in it for me? How much do I get out of it?' But the world has always cast its gold at the feet of those who serve. Our Association will grow and attract membership when it renders service, and the individual member will learn to live it more as he gives of himself to it."

In his long and distinguished career Mr. Garman has carried great responsibilities, and he has not always been able to participate in A.A.E. activities as dynamically as he did in the early 20's, but in those early years Mr. Garman placed upon A.A.E. the indelible stamp of his personality. He was one of the men who defined the ideal and shaped an institution in conformity with it.

Walter A. Matthews was another executive engineer who believed that the establishment of unity was the first and most necessary step in developing any program for improving the social and economic lot of the engineer. He was most active in A.A.E. during the years when he was with the American Bridge Company, and after his return from World War I. It was however, during the last ten years that he made his unique contribution to the association. Hampered by illness in his family and by his own waning strength, he used his last years in the service of two institutions which commanded his deepest loyalty—his church, and this association. He helped to found and became the leader of the Unity Center of Elmira, New York. He gave to that task the time he had hoped to spend on completion of a technical handbook for use of young engineers. It was necessary to forego the part-time work which he had done at home for a number of years. This was not a sacrifice, it was a joyful dedication. More than one employee at Headquarters who read his booklet "The Heart of Wisdom" found it easy to understand why Mr. Matthews put this one chance to serve before all the other projects which interested him.

His special function in A.A.E. was one which evolved slowly. It began with a warmly personal letter about an article in PROFESSIONAL ENGINEER which accorded with his own convictions. This letter the Secretary acknowledged gratefully. Then there came other letters with droll bits of verse and entertaining caricatures which helped the staff of A.A.E. by relieving tension, even though the ideas back of the jingles, limericks, and drawings shrewdly pinpointed some of the very problems which the staff had approached too grimly. Through brown-outs and black-outs and printers' strikes and paper shortages, through the period of deep concern over "mobilization" of technology and the disunifying impact of the Wagner Act, this gentle but astute philosopher made it his job to keep up the morale of A.A.E. headquarters.

Officers and executive employees of the Association clarified their own ideas in writing Mr. Matthews about their problems. He was as constant as the North Star in holding the Association on its course. Always he reminded the staff that A.A.E. is essentially a fraternity and this one vital fact must never be forgotten.

Sometimes a whole family is brought into this close and personal relaionship with A.A.E. One such group is the Hogue family of California. wo generations of Hogues have been devoted members of A.A.E. Wilbur ). Hogue, son of that grand and highly respected engineer, the late Gilbert I. Hogue of Fresno, California, had a deep understanding of A.A.E.'s leals before he became eligible for membership. His father "preached" .A.E. to his three sons and brought them all into the fold. Many officers f the Association, as well as staff members, watched Wilbur's professional rowth with pride. His was the "broad training" which A.A.E. has urged pon engineers—a bachelor's degree in English, a master's degree in engieering. Here, they felt, was a young man wonderfully equipped to recogize the importance of the human side of engineering. That conviction eepened as he visited headquarters between interesting assignments in emote parts of the world. Some of his letters from Firestone's great roject in Liberia were published in PROFESSIONAL ENGINEER. Members f A.A.E. headquarters staff had the privilege of advising him about mareting a collection of short stories which grew out of his work, and which ter appeared in book form.

Late in the fall of 1951 Mr. Hogue visited headquarters just before he eturned to his post with the American Legation in Beirut, Lebanon. Staff embers who had watched his growth through the years gloried in the fulllment of the promise of professional stature which they had seen in him hen he was a mere youngster. He returned to Chicago in April, critically, opelessly ill. The grief that pierced members and officers of A.A.E. and s headquarters staff was the poignant kind of thing to which only a frarnity, not a mere non-profit corporation or functional association is susptible.

Five months after the passing of Wilbur Hogue news came of the eath of his father, Gilbert Hogue, on September 26. Mr. Hogue was ne of A.A.E.'s favorite sons; he joined the Association in 1919, and from e first day of his membership took an active and devoted part in Associaon activities. He received his civil engineering degree from the University Idaho in 1900, and joined the U.S. Reclamation Bureau in 1902, 53 ys after it was organized as a branch of the United States Geological urvey, retiring five years ago after more than 44 years of public service.

And just as we go to press we are saddened by the death of a most loved member, one who has served the Association and his profession with e highest degree of devotion. All who knew Kenneth H. Talbot, of hoenix, Arizona, will mourn his untimely passing. He was one of those en never to be forgotten, truly one of God's noblemen, who practiced e golden rule in his daily life.

Col. Talbot played an important part in Association activities throught the years and was responsible for much of the fine work accomplished the Association's service department during the 20's. He was the son the late Professor Arthur Newell Talbot of the University of Illinois; as born in Champaign, Illinois, and graduated from the University of

Illinois as a Civil Engineer. Mr. Talbot served in both world wars and was a retired lieutenant colonel.

The Wason Medal was awarded to Col. Talbot by the American Concrete Institute in 1943 for the development of improved methods for underwater placement of concrete in the construction of United States Navy drydocks. In 1944 and 1945 he directed the concrete installations for the atomic energy plant then being built at Hanford, Wash.

He was in every sense of the word a true engineer. He loved his profession, and was proud to have had a part in the work of A.A.E., but disappointed because engineers in greater numbers did not realize the advantage of membership in this all-inclusive national engineering society devoted strictly to the business problems of the individual engineer. For a number of years prior to his death he was an active member of the Phoenix Chapter.

Perhaps no other president of the Association was more devoted to the cause of A.A.E. than the late Colonel Webster L. Benham. He was chairman of the Association's first committee on Fees and Services for Practicing Engineers and his work on that committee and later committees including the committee appointed several years ago to bring all this material up to date, showed his great ability as an Engineer.

He served the Association most efficiently as Director and president during the early twenties when general economic conditions world-wide were not the best. Always a staunch supporter of the aims and ideals of A.A.E., he, like the late Colonel Talbot never missed an opportunity to speak a good word for A.A.E. Both of these men believed and publicly declared that A.A.E. is the proper society to carry on a determined and effective program in the field of professional welfare for the benefit of all Professional Engineers.

Colonel Benham was president of the Benham Engineering Company of Oklahoma City. He was a past director of the A.S.C.E. and a consulting engineer of note. His son David Blair, who was associated with his father and now becomes head of the Benham Engineering Company, is also a member of A.A.E.

Another passing that deeply saddened us was that of Henry Stockmann, a member of A.A.E. almost since its inception. He had visited Headquarters with his wife only a short time before his untimely death. He was one of those true-blue members, always interested in Association activities and through his cheery, friendly letters, and his many visits to headquarters we came to know him for the man he was, an able engineer, a good American.

The closeness of ties that hold together the membership of A.A.E., the feeling of unity and the ideal of service, make it most vulnerable to grief, but they also yield great happiness, and they insure in the organization a mystic quality, a fealty which is the essence of fraternalism.

# *Dr. Killian Looks Ahead*

**Excerpts from the excellent report of the President of Massachusetts Institute of Technology, in which he advances some important changes in engineering curricula.**

In his annual report to the Institute's Corporation, in the fall, Dr. James R. Killian, Jr., President of the Massachusetts Institute of Technology, stated that although the shortage of engineers and scientists in the United States, and in most parts of the world, for that matter, continues to be critical, the increasing number of students enrolled in science and engineering courses would indicate that the tide is turning.

"In the autumn of 1950," said Dr. Killian, "the national freshman enrollment in engineering schools dropped eighteen per cent, while the cumulative decline in enrollment was pointing to an output in 1954 which would be substantially less than the output of the engineering schools before World War II."

A rather careful check of six widely-distributed engineering institutions shows, according to Dr. Killian, that the average increase over last year in the number of applicants has been thirty-seven per cent, and the increase in freshman registration at these institutions is twenty-three per cent.

"Modern society requires," said President Killian, "an increasingly greater proportion of its workers to be scientists and engineers in order to carry on its work and to maintain and advance its health, its wealth, and the general welfare of mankind . . . the evidence seems to be clear, that for the long pull, the demand for scientists and engineers will be greater than the supply provided for by the present and foreseeable level of enrollments, and, further, that we should not be governed in our planning by the possibility of any temporary short-term fluctuations in demand."

Discussing the Institute's educational program, Dr. Killian stressed the importance of providing a program that will attract men with creative ability, leadership potential, and public spirit. In order to provide the means to maintain such a program, he said, the Institute has made long-range plans for funding its independence and its future, and provision for new education and research facilities in order to realize new educational opportunities.

Speaking of opportunities for creative work, President Killian said, "Another concept in undergraduate education which has been examined and advanced during the year is what we call the M.I.T. Project Plan for Professional Education. By bringing down into the undergraduate school more of the creative research and professional attitude of the graduate school, we have been seeking to do a better job of teaching engineering and science to undergraduates. We have been doing this in part through the use of projects as, for example, a plant-design problem undertaken by a team of students and requiring the use of judgment in regard to the many different technical and economic aspects of the problem.

"Another approach, aided by industry, has been to give a class of students the opportunity to redesign an appliance or piece of equipment and to have their designs built and tried out. Our aim now is to find an undergraduate equivalent for the creative experience of the graduate student; to give the undergraduate an opportunity himself to be creative in terms of his stage of development.

"During the past year, after extended discussion by appropriate committees," Dr. Killian said, "the Faculty approved a new four-year integrated program in general education. This core curriculum consists of a two-year introductory course required of all freshmen and sophomores, followed by an elective sequence in the junior and senior years in which students will have the opportunity to elect a combination of three subjects in one of eight fields together with a fourth, or distributional, subject in a different field. Under this plan, eight terms of general education are required, although the student is free to elect two additional terms.

"The required two-year course is designed to give the student an introductory knowledge of important issues, ideas, periods and events of the past, selected on the basis of their relevance to the world today. It will emphasize the interrelation of the various humanities and social sciences as elements in human experience and introduce the student to the process of critical thought as applied in the humanities and social sciences. Practice in written and oral expression is an integral part of this basic program.

"Specialization in the third and fourth years may be in one of the following fields: history of ideas; political, social, and economic history; literature; music; economics; political science and international relations; labor relations; and psychology.

"The significant aspects of this new program, other than its carefully planned content, are the high intellectual standards required and the rich fare available at the Institute for our students. The strength of this program in general education, coupled with the general educational values of our professional subjects themselves, combine to afford our students an undergraduate education at once deep and broad. Because of our fine faculty in the humanities and the social sciences, we have the resources of a strong liberal-arts college to couple with the professional standards and motivation of our Schools of Science, Engineering, Architecture, and Management. This combination, as the Institute has demonstrated in the past, has great power and is peculiarly appropriate to meet the educational needs of our modern industrial society."

**A photogenic group of young engineers making up the A.A.E. Student chapter at akersfield College.**

### Bakersfield College
### A.A.E. Chapter

Bakersfield Student chapter is comosed of "live-wire" engineers, interested ot only in their technical studies but in ocial and athletic activities.

Robert Orrick, the chapter's efficient ecretary, wrote us interestingly of some f their events. Recently the group sponored, as Secretary Orrick, phrases it, lovely girl as our candidate for the Colege Football Queen, and she came in econd to become a Princess. We conucted our annual Thanksgiving Turkey ffair to successfully raise money to meet ur expenses for the year. We also played basketball game with the Renegade nights (Bakersfield College honorary ervice club) as a preliminary to the regurly scheduled Conference varsity match ith Fresno College, and won 27-24. We re scheduled to play various bowling and asketball challenge matches with other ubs of the college.

"The chapter is co-sponsor with the local (adult) Engineer's Club of a bi-weekly engineering forum lecture series. Prominent professional engineers are invited to address these meetings. The average attendance is usually 150. E. M. Hemmerling, our adviser, is the coordinator of the series.

"In the spring we will have our annual steak bake with new members cooking for and serving the older members and their lady guests. We plan also to sponsor a booth at the College Spring Carnival, and then to top off the year we plan to spend a week-end in the High Sierras, trying our luck at catching the elusive rainbow and golden trout."

How about that for a program. Good Luck, Students, and a most successful year. Shelton Self is president of the chapter and Bob G. Rogers, vice president. Bill Rous serves as treasurer and Robert Orrick takes on the duties of secretary, while Fred Ray acts as Sergeant-at-arms.

# American Association of Engineers Thirty-Seventh Annual Meeting

The 37th Annual Meeting of the American Association of Engineers was held at the Lake Shore Club on Lake Shore Drive, Chicago, Illinois on September 2nd and 3rd, as part of the Centennial of Engineering, which continued to September 13th, with Headquarters in the Conrad Hilton Hotel.

The Centennial commemorated the founding of the first national society of engineers in the United States, the American Society of Civil Engineers, just one hundred years ago. Engineers from all fields participated in the Centennial Program because 1952 marks as well one hundred years since engineering emerged as a profession in the United States.

The principal purposes of the Centennial were:

(1) Create a better understanding by the public of the principles which have made America great;

(2) Establish a better understanding by the public of the engineering profession itself.

Sixty-five engineering societies and groups held their annual conventions or special gatherings during the Convocation, and all reported successful meetings, good attendance, excellent papers, and thought-provoking discussions and symposiums.

The Annual Meeting of A.A.E. was opened by Patrick J. Lucey, President, and the panel sessions were handled by Dr. Herman A. Wagner, George Havas, Vice President, Kaiser Engineers, Oakland, California; Everett C. Shuman, Director of Research, Kaylo Division, Owens-Illinois Glass Co., Toledo, Ohio; Walter H. Scales, Southern Manager, National Lumber Manufacturers Association, New Orleans, Louisiana; Charles S. Becker, Industrial Engineer, The Crane Company, Chicago, Illinois; Earl F. Ronneberg, President, N. Ronneberg Company, Engineers and Architects, Chicago, Illinois; Donal L. Chamberlin, Consulting Engineer, Washington, D. C.

Subjects discussed were: Public Relations and the Engineer; Unity in the Engineering Profession; Engineering Manpower; How Can Engineering Talent Be Better Utilized by Industry, by Government, by the Armed Services; Registration.

The purpose of the panel sessions was to give members and visiting engineers an opportunity to express themselves frankly and freely, and this they did. All sessions proved that engineers are sincerely interested in the business problems of the profession. The panelists all did an excellent job in directing and answering questions propounded by the many engineers who came to listen and discuss the "human side of engineering."

Attending the A.A.E. sessions were Arthur Paret, Assistant Manager, Union Miniere du Haut-Katanga, Brussels, Belgium; Bjarne Bassoe, General Secretary of Den Norske Ingenior Forening, Oslo, Norway, and Humberto Soto Negarra, Ingeniero Visitador, Companis Administrador del Guano, Lima, Peru. All had interesting messages for the American engineers, and brought greetings from their respective engineering societies. It was indeed a pleasure and a privilege to have had this contact with engineers from other lands.

The meetings at the Club, luncheons, and banquet, were arranged by William J. Mauer, and to him goes the credit for a smooth running affair. Mr. Mauer is Member No. 3, one of the young men who founded A.A.E. shortly after his graduation from Cornell.

*For the permanent records of the Association we wanted to publish a brief story of A.A.E.'s convention held in conjunction with the Centennial of Engineering.*

**erman A. Wagner, hairman of the A.A.E. anel Sessions at its an- ual convention held in onjunction with the Cen- nnial of Engineering, ept. 1952. Having de- oted many years to the ork of A.A.E. Dr. Wag- er proved an able and teresting chairman. ubjects dealing only ith the business prob- ms of the Engineer were iscussed.**

Mr. and Mrs. Walter R. Kostner de- oted both days to extending courtesies to e visiting engineers and their ladies. rs. Kostner and Mrs. Robert S. Hale cted as hostesses to the ladies entertain- g them at luncheon at the Club on Tues- ay and at Kungsholm Scandinavian Res- urant on Wednesday, with a tour of the ty in the afternoon and tea at the Edge- ater Beach Hotel.

The Annual Banquet was held on eptember 3rd in the Old Salem Room the Lake Shore Club, and was excep- onally well attended. The engineers oroughly enjoyed the roast beef dinner, ith all its trimmings, which all declared as the finest that they had ever been rved at an engineering gathering. Since the menu was written in engineering terms, we feel our members would like to see it and we are, therefore, reproducing it in this issue.

Vic H. Housholder, Director from Zone 3, Phoenix, Arizona, was the Toastmaster, and music was furnished by Richard Harding Humphrey, who starred as Balladier in the Centennial of Engineering magnificent production "Adam to Atom." He was accompanied at the piano by Mr. Neal Kayan, and sang the "Song of the Open Road," by Malotte, and "Ballad of the Engineers" by Isaac Van Grove, as arranged by Messrs. Humphrey and Kayan.

The principal speaker was Peter L. Loewe, President, Triad Engineering

Company, Chicago, Illinois, who took as his subject "The Engineer in our Modern World," and left with his audience plenty of food for thought. Short informal talks were given by members of the Board of Directors.

### SPECIFICATIONS—AAE No. 37

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E. & O. E. Q. E. D.

Walter R. Kostner, designer of the A.A.E. Membership Key, was presented with the first gold key as a token of appreciation. Walter H. Scales, Director at Large, presented on behalf of the Board of Directors a gold key to L. K. Sherman, 82 years of age and the only living president of the first eight presidents who directed the activities of the Association in that capacity. Mr. Sherman responded in a few well-chosen words, indicating that his heart is and always will be with the Association he worked so hard to build with the late Dr. Frederick H. Newell and William H. Finley, President of the Chicago & Northwestern Railroad in the years prior to 1922.

It was most pleasant to have in attendance at the Banquet a few of the very early members of A.A.E., for instance, C. A. Soans, of Soans, Pond & Anderson, Patent Attorneys, No. 375, Chicago; Franz Schulze, Consulting Engineer, Chicago, No. 1718; L. K. Sherman, sixth president of A.A.E., No. 530; A. E. Holmes, Des Moines, Iowa, No. 2129; Walter Scales, No. 1720; Joe B. Butler, Prof. C.E., Missouri School of Mines, No. 2743, and three Life Members, Fran Overstreet, Denver, Colo., Patrick J Lucey, and Guy Lowers, both of Chicago, Illinois.

All in all, A.A.E.'s 37th annual convention was a successful meeting, and it is hoped that the 38th will be even more so. We are planning it for 1953.

The entire Centennial was remarkably well staged, and credit for its success must go to the various committees and hard-working chairmen, in particular, E. Lawrence Chandler, Secretary and Convocation Manager; Howard F. Peckworth, Chairman for General Arrangements, and G. Donald Kennedy, Chairman for Technical Programs, and, in addition, to Major Lenox R. Lohr, President of the Centennial of Engineering.

### Wagner Addresses Illinois Engineering Council

Herman A. Wagner, past president of the American Association of Engineers was the principal speaker at the December 6 meeting of the Illinois Engineering Council, held in the rooms of the Western Society of Engineers, Chicago. The history and recent progress of unionism among engineers, was his subject and he gave a comprehensive report of this activity especially since the passage of the Wagner Labor Relations Act.

**A.A.E. table at Centennial of Engineering Banquet held on October 22, 1952 in the Mayflower Ballroom, Washington, D.C. Reading from left to right: Orville H. Kneen, two guests, Donal L. Chamberlin, Henry Austin, Kenneth P. Armstrong and William L. Beck.**

**Carlton S. Proctor, President A.S.C.E., and vice president of the Centennial Convocation of Engineers at Chicago, addressed the group taking as his subject "A Century of Engineered Progress . . . Its Implications and Challenges," Walker L. Cisler, president and general manager of the Detroit Edison Company spoke on "Some Aspects of Nuclear Power for Industry." The meeting was sponsored by the D.C. Council of Engineering and Architectural Societies and its member organizations.**

### Phoenix Chapter AAE

Phoenix Chapter, always a "five-star" apter in A.A.E. history, starts out the ar with Norman Blair, architectural gineer, at the helm, and according to ord received at headquarters, he is a ive-wire," which to us indicates another nner year for this A.A.E. outpost.

Mr. Blair joined the Association in 52. He received his B.S. in Architec- ral Engineering from the Pennsylvania ate College in 1931 and is registered in hio and Arizona.

On November 14, 1952 the chapter hon- ed their new members by a dinner-dance Bud Brown's Barn.

A former chapter-officer, Neil R. Mc- od, whom headquarters came to know exceedingly well because of his excellent work as chapter secretary, was killed in a two-car collision on his way home from his duties one evening last October. Mr. McLeod was a civil and mechanical engineer employed with Metalcraft Manufacturing Company. Inasmuch as he had purchased a Class D certificate of accidental death and dismemberment insurance which is available to all A.A.E. members, his widow received a check for $2000 from the insurance company. While we are deeply sorry that the accident took from his family a devoted husband and father and from A.A.E. a most loyal member, we are happy that because of his membership and his appreciation of the group insurance, we were able to send this check to his widow.

### Worcester Junior College AAE Chapter

An active group of engineering students comprise our student group at Worcester College, Worcester, Mass. This year the boys have elected the following men to serve as chapter officers: President, Emil L. Novak; vice-president, Donald P. Garnache; secretary, Janet M. VanWert, and treasurer, Robert L. Diamond.

### Arizona State College AAE

Albert J. Catroppa is president of the A.A.E. Student Chapter at Arizona State College this year, and Milo G. Miskovitch is vice president. Serving as secretary and treasurer is Paul Kiefer. Mark Sabastian is charged with publicity matters and Chain Gang Representative is Joe DeRoulhac.

The group is sponsored by Stanley Peabody and J. C. Douthit, both instructors in the Industrial Arts department of the College.

### E. L. Mowder Heads Peoria Chapter

Peoria Chapter A.A.E. has elected its officers for the ensuing year. E. L. Mowder is President, A. C. Tosetti, Vice-President and A. B. Litvien, Secretary-Treasurer. B. S. Rosenberg serves two years as director of the group and L. C. Scott, director for one year.

Peoria Chapter was founded in 1946 and is starting the new year in good fashion.

### Chicago

Lt. Commander, R. S. Hale, general sales manager and chief engineer, of the A. F. Anderson Iron Works, Chicago, was the principal speaker at the Chapter's December meeting. Mr. Hale took as his subject "Welded Steel Construction of Buildings and other Steel Structures," and gave his listeners an extremely interesting talk. Mr. Hale was graduated from the University of Illinois, is a registered architect in the state of Illinois, and author of "Welded Steel Construction." He is an active member of the Chicago chapter.

The February meeting will be held or February 27th, in the private dining rooms, 57 W. Randolph Street. Th principal speaker will be R. V. N. Gordon, Vice Consul and Assistant Trad Commissioner of the Canadian Consulate General, who will speak on "Recent Industrial Developments in Canada." The talk will be supplemented by films illustrating Canada's development

Walter R. Kostner is president o the Chapter, A. L. Christy, vice president, and Peter P. DeMay, secretary W. H. Robinson is serving as treasurer

### Riverside College AAE

Word from Archie J. Twogood, Adviser, tells us the A.A.E. Chapter a Riverside started off in fine fashion with a fine, active group, with Andrew Kurkgian as president. Jim Loop is vice president, and Larry Poulsen, secretary an treasurer. Bob Archibald is chairman transportation. The club numbers 21 bu ding engineers.

Larry Poulsen was the student fro Riverside receiving the San Bernardin Chapter's award of $25.00 for the "Ou standing Engineer of the Year." One bo from each of the junior colleges in it region, Chaffey, Riverside and San Bernardino Valley, is selected for this annual award. This is a splendid activity an one that might well be emulated by othe adult groups. It is a real encouragemen to young men selecting engineering a their life work.

### Long Beach City College AAE

A nice letter was received at Headquarters from Donald Wells, corresponding secretary of Long Beach City Colleg Chapter, A.A.E., indicating that thi group starts its year in good fashion Twenty-four young men make up th chapter, which has always been one of th most active of the A.A.E. student group

### Long Beach Chapter AAE

From "The Mixer," official bulletin o the Long Beach chapter, A.A.E. for man years, we learn that Robert E. Latham i serving the group as president, and Norbert W. Dean, vice president. Duties o ne secretaryship are in the hands of Ienry Simmons and John E. Martin erves as treasurer.

One of the important committees of the hapter is Junior Chapter Coordinating f which J. H. Davies is chairman. Servng with him are Meredith W. Chatten nd John E. Marriner. Another commitee which we feel is most essential in an ngineering group is the Greeting and ellowship Committee, headed by Beverly . Buchanan, assisted by Vic Chase and ay L. Brosterhous.

In the early days of the Association, .A.E. was considered more of a fraernal association than an engineering soiety, because of its belief that engineers eeded to get acquainted with each other; hey needed an opportunity to express hemselves on their individual profesional and business problems, and so the hapter movement was started. It is not nough to get engineers to attend meetngs. They must be made to feel welcome, o get on "speaking terms" with other enineers, and here's where a good Fellowhip Committee can do an outstanding job or the chapter, and for the individual ngineer.

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### Chaffey College

"Chaffey Engineers Club, A.A.E.," vrites Alan Beggs, President, "is having fine year. Forty active and eager memers find it a real pleasure to attend our neetings; besides, we have a lot of fun. Dur year started off with a dinner meetng in our Kampus Kitchen, at which ime we had the pleasure of hearing . H. Zimmer and J. M. Swartz of the ockheed Aircraft Service, tell us about ngineering opportunities in the field of eronautics, and the plans for their new et aircraft maintenance and repair depot n Ontario, the first activity of its type in ne world.

"E. M. McCormack with the Corona aboratories of the National Bureau of tandards was guest speaker at another inner meeting. In addition to his inspirtional talk on the future of electronics, e demonstrated the electronic 'tick-tace' machine.

"Photogrammetry and its applications ere interestingly explained at another meeting by W. H. Cook, member of the J. H. Davies firm of Consulting Engineers, in Long Beach. The speaker discussed the problem of land subsidence, and explained the role played by photogrammetry.

"We have visited the new Etiwanda steam-electric power station, a $30,000,000 project and a similar plant at Highgrove; also took a two-day trip to Searles Lake, Trona, and the mines and mills in the Randsburg area. In December we visited the Lincoln-Mercury Division of the Ford Motor Company, touring the assembly plant. Following that we moved on to the Goodyear Tire and Rubber plant, and finally visited the new $8,000,000 Television City of C.B.S. in Hollywood.

"Thank you for your interest in us; we do our best to live up to your expectations."

Thank you, boys; that's the spirit. An active, aggressive, group of young engineers learning early in their careers to take an active interest in their engineering societies.

### Our Mexican Engineers

We wish to express our sincere appreciation of the efficient manner in which Jose J. Garcia handled his duties, during his secretaryship of "Asociacion de Ingenieros," A.A.E.'s chapter in Parral, Mexico. He kept Headquarters right up to date with the activities, and never failed to send an interesting report of every meeting.

The group holds monthly meetings. The September meeting was held at the Y-Inn, a dinner-session with members telling of some of their past experiences and stories. At this meeting the president and founder, Roberto Barrera, informed the engineers of a piece of land suitable for a future chapter building. On October 3 a special meeting was called to arrange for the purchase of a piece of ground at the entrance to Parral. The lot has now been purchased and the construction will start in the very near future.

Mark D. Fowler has been chosen by the Parral Chapter to serve as President succeeding Roberto Barrera C. who founded the chapter and who is now serving in the capacity of director with Luis

Tinoco and Charles Overton. Mr. Arnulfo Araujo will serve as Vce-President and Rafael Rangel as Secretary. Mr. Jose Garcia who served as Secretary last year will now act as Treasurer. The Parral Chapter has just completed one year of successful operation.

Members of A.A.E. join National Headquarters in extending greetings to our members in Mexico.

### LaBastille Opens Office

William M. LaBastille, for the past thirteen years associated with the James Stewart Corporation resigned his position as Vice President of that company late in 1952 to open up his own offices at 111 West Jackson Boulevard, Chicago.

W. M. LaBastille, Inc., will specialize in Industrial Plants, Commercial Buildings, Concrete Structures, Construction Supervision, Investigations and Reports, Domestic and foreign.

Mr. LaBastille has been an active member of the American Association of Engineers since 1928. He has had twenty-eight years experience in the construction field both in the United States and abroad.

### Carl E. Schmitz

Carl E. Schmitz was recently appointed Vice President in Charge of Sales for Crane Packing Company of Chicago, a leading manufacturer of mechanical packing, mechanical seals Teflon parts, Lapping machines and other products. Mr. Schmitz formerly held the position of Vice President and Director of Engineering.

There are to be five Division Sales managers in the reorganization under Mr. Schmitz.

Mr. Schmitz joined the Crane Packing Company organization in 1942, where his duties have been with the engineering department. He is a past president of the American Society of Lubricating Engineers, and a member of many other engineering and technical societies, including the American Association of Engineers. We wish Mr. Schmitz the best of success in his position.

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### New Pouring Spout

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# *Book Reviews*

**ngineering Electronics, Fundamentals of.** Second Ed. William G. Dow, Prof., El. Engrg., Univ. of Michigan. John Wiley & Sons. $8.50.

A textbook primarily for undergrad-
ate electrical engineering courses;
seful also as a reference book for elec-
on tube and electronic circuit engi-
eers in industrial and government
ork. Important revisions have been
ade in this second volume and new
atures added.

**egal Guide for Contractors, Architects and Engineers,** I. Vernon Werbin, Lic. Prof. Engr., M., New York Bar. McGraw-Hill Pub. Co. $4.75.

A legal guide for constructors by the
thor of "Legal Phases of Construc-
ons Contracts," a well known book.
erbin's new book is designed to sup-
ement the earlier one; not intended to
ke the place of necessary legal serv-
es, but to forewarn of pitfalls. Gives
cts and contract provisions involved
various situations, and is written in
thoroughly understandable manner.

**adio and Television Workshop Manual,** by Sidney A. Dimond and Donald M. Anderson. Prentice-Hall. $4.50.

A practical guide to creative radio
d television, serving two purposes. It
nds itself to workouts on interpreta-
on, sincerity, voice protection, etc.,
d familiarizes the student with the
ndling of dramatic narration. The
ok contains a good chapter on Sound
d Music, gives suggested writing ex-
cises and preparation for visual pres-
tation. Paper covers, 8½ by 11.

**ntrollers for Electric Motors,** by Henry Duvall James, consulting engineer, and Lewis Edwin Markle, Design Engineer, Westinghouse Electric Corporation. McGraw-Hill Book Co. $7.00.

**bert Moses,** Builder for Democracy, by Cleveland Rodgers, formerly editor, Brooklyn Eagle. Henry Holt and Co. $6.00.

Introduction to this book is by H. V. Kaltenborn, and he gives an interesting description of the man, whose story he says, "is the story of the progress of decent government in New York State and New York City." Moses was known as "the Man Who Gets Things Done," and his severest critics concede his unusual ability and remarkable achievements.

**Storage Tubes and Their Basic Principles,** by M. Knoll, Prof., El. Engrg., Princeton Univ., and member, Technical staff, RCA Laboratories Div., and B. Kazan, member, Tech. Staff, RCA. John Wiley & Sons. $3.00.

The book explains in concise form, the fundamental operation of the different types of storage tubes, describing the different storage tubes, many of which are still in the development stages. Parts of the book were prepared for the U.S. Army Signal Corps in the form of a report.

**Descriptive Geometry,** by E. G. Pare, R. O. Loving and I. L. Hill, Assoc. Profs., Tech. Drawing, I.I. Tech. The MacMillan Co. $4.00.

A text book in which fundamentals are presented in the same pedagogically sound units of work as are usually introduced in laboratory periods. Problems based on the text material are given at the end of each chapter.

**Mechanics of Materials,** Alvin Sloane, Assoc. Prof., M.E., M.I.T. The MacMillan Co. $5.50.

A text book for engineering students in which the author has attempted to express the fundamental theorems of Mechanics of Materials in prose which is clear, direct, and satisfying to students. Well written and illustrated.

**Methods of Applied Mathematics,** F. B. Hildebrand, Assoc. Prof., Math., M.I.T. Prentice-Hall, Inc. $7.75.

As explained in the preface, the "principal aim of this book is to place at the disposal of the engineer or physicist the basis of an intelligent working knowledge of a number of facts and techniques relevant to four fields of mathematics which usually are not treated in courses of the 'Advanced Calculus' type, but which are useful in varied fields of application." Well written by a competent authority.

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**Glycols,** by George O. Curme, Jr., V.P., Research, Union Carbide and Carbon Corpn., and Franklin Johnston, Assist. Dir., Research, of the same company. Am. Chemical Society Monograph #114. Reinhold Publishing Co. $12.00.

Subject matter in this valuable book is treated from a technical point of view, principally in terms of ethylene glycol and propylene glycol. Physical data are presented for all the glycols discussed, and the material is supplemented by an impressive number of charts and tables. Separate chapters cover glycol production, physical properties, applications, oxides, derivatives and condensation polymers.

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**Design for a Brain,** by W. Ross Ashby, M.A., M.D., D.P.M., Dir., Research, Barnwood House, Gloucester. $6.00.

This is the author's first book, although his researches on the functioning of the brain have been widely recognized. The book attacks an outstanding scientific problem: how can the brain, as a mechanism, also be "intelligent?" The text is freely illustrated.

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**Performance of Lubricating Oils,** by H. H. Zuidema, Research Laboratories, Shell Oil Co., Inc. Reinhold Publishing Corpn. $5.00.

Practical information on basic performance characteristics, with helpful charts, tables and illustrations. Worthy of special mention is the chapter on manufacturing methods, designed to point out the effects of each step in the manufacturing process upon the performance characteristics of the final product.

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**Electrochemistry,** Textbook of, by G. Kortum, Prof., Physical Chemistry, Tubingen University, and J. O'M. Bockris, Lecturer in Physical Chemistry, Imperial College of Science and Technology, Univ. of London. Two vol. Elsevier Publishing Company.

By this English edition of Kortum's Lehrbuch der Elektrochemie, it is hoped to make available to a large group of physical chemists a solid and comprehensive summary of modern electrochemistry, of use not only to those engaged in study and research in the chemistry of ions but also to many who use electrochemical methods as a research tool. Vol. 1 consists of nine chapters and Vol. 2, 5 chapters. Some new material has been added to bring the book up to date. About 100 problems have been added and solutions and explanatory notes given where necessary.

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**Chemical Engineering Techniques,** by B. E. Lauer, Head, Chem. Engrg., and Russell F. Heckman, Assist. Prof., Chemical Engrg., University of Colorado. Reinhold Publg. Corpn. $6.00.

The purpose of this book is to acquaint both the student and the layman with the important considerations involved in the selection of the most suitable method for performing any of the several manufacturing tasks carried on in the chemical and process industries. Well-written, and profusely illustrated.

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**Industrial Waste Treatment,** by Edmund B. Besselievre, Chief Sanitary Engineer, International Sales, The Dorr Company. McGraw-Hill Book Co. $7.00.

Being a comparatively new science, not much has been written on Industrial-waste treatment, and intelligent scientific research has been applied to it only during the last decade. This book aids plant management to find a satisfactory and economical solution to its industrial-waste problems; cause of the oblem, the legal factors involved, ethods of abating or eliminating ream pollution, and the economical pects that will carry through a pro- am for a given situation.

**andbook of Applied Hydraulics,** Calvin V. Davis, Vice President, Harza Engineering Co., Editor-in-Chief. 2nd Ed. McGraw-Hill Book Co. $15.00.

This outstanding and comprehensive anual, by a staff of specialists, supplies wealth of needed reference material all phases of hydraulic engineering— ncise information on the experience, lvances, and methods helpful in the anning and designing of efficient hy- aulic works. Valuable new material s been added to the second edition, in rticular the treatment of gravity dams at examines recent projects in the ght of structural behavior. The section hydroelectric plants has been en- rged to include important new instal- tions with especial reference to under- ound stations.

**riting the Technical Report,** by J. Raleigh Nelson, Prof. Emeritus of English, College of Engrg., Univ. of Michigan. 3rd Ed. McGraw-Hill Book Co. $4.50.

An excellent book on an important bject, consisting of five parts. Design d composition; specific instructions r the setup of both long and short- rm reports; Systematic procedure for e critical examination of a report; mmary of fundamentals treated in e three preceding sections, and finally, manual for a sixteen-week course in port writing which can be used as a sis for classroom purposes or as a ide for study for those in practice.

**vanced Mechanics of Materials,** by Fred B. Seely, M.S., Prof. Emeritus, and James O. Smith, A.M., Prof. Theoretical and Applied Mechanics, University of Illinois. 2nd Ed. John Wiley & Sons. $8.50.

The first edition of this book ap- red twenty years ago, consequently ny important contributions have been de to the subject treated since that time. The book was prepared primarily for advanced undergraduate and first-year graduate students in engineering, although in selecting the topics and methods of presentation the needs of design and research engineers were kept in mind. Much new material has been added and many revisions made. All in all, an excellent book.

**Principles of Radar,** by J. Francis Reintjes, Assist. Prof., Communications, and Godfrey T. Coate, formerly Assist. Prof., El. Engrg., M.I.T. 3rd Ed. McGraw-Hill Book Co. $7.75.

Material in this new third edition has been completely reorganized and rewritten and the format has been changed. However, as before, the book deals with the fundamental concepts and techniques of pulse radar. It presents the engineering principles of the pulse circuits and the high-frequency devices common to nearly all radar systems. A new chapter on radio-frequency transmitting and receiving systems has been added. Well illustrated.

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**Analytic Mechanics,** Virgil M. Faires, Prof., M.E., N.C. State College, and Sherman D. Chambers, Prof. Emeritus, Engrg. Mechanics, Purdue University. 3rd ed. The MacMillan Co. $6.00.

The objective of the new third edition is to make explanations clearer to the students. Many new illustrative examples have been added, and some new material, particularly in the chapter on vibrations. Problems in this edition were revised by James H. Caddess, Assist. Prof. M.E., A. and M. College of Texas.

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**Engineering Materials,** Textbook of, by Melvin Nord, Dr. Eng. Sci., LL.B., Assoc. Prof., Chem. Engrg., Wayne University. John Wiley & Sons, Inc. $6.50.

A textbook for engineering students, designed for use in a one-semester course, and intended to acquaint the student early in his career with the engineering point of view. The book begins at an elementary level, introducing basic concepts in physics, chemistry, geology, and various fields of engineering. Engineering materials, in this book, is taught in a fundamental, coherent manner, rather than as a series of unrelated subjects and processes.

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**Electronic Engineering Principles,** John D. Ryder, Ph.D., Prof., El. Engrg., Head, Dept., Electrical Engrg., University of Illinois. 2nd ed. Prentice-Hall, Inc. $9.00.

New and timely material has been added to bring this book strictly up to date. Much of the text has been rewritten and all has been carefully reviewed. New problems and new illustrations have been added. An entirely new chapter on solid-state devices and the transistor has been incorporated.

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**The Mines Register.** Dr. Joseph Zimmerman, Editor-in-Chief. Vol. XXIV —1952. $25.00.

Mines Register, successor to The Mines Handbook and the Copper Handbook, describes the non-ferrous metal mining companies in the Western hemisphere. It presents the latest information obtainable on mining companies in this part of the world, and in a special section gives a selected list of mining companies that are located in other parts of the world. This is a "must" book for anyone interested in or active in the mining field. Statistics relating to the metal industry and which have been a regular feature in preceding editions have been brought up to date in this new 1952 edition.

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**Lange's Handbook of Chemistry,** 8t ed. Handbook Publishers, Inc. $7.00

Lange's is primarily a compilation o physical data, of value to chemists chemical engineers, manufacturers and those in allied industries. The book has been brought right up to date. It is th result of a number of years' experienc in the compiling and editing of dat useful to chemists, and every effort ha been made to select the most reliab information and to record it with accu racy. A valuable book for a technica library.

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**Extrusion of Plastics, Rubber an Metals,** Herbert R. Simonds, consult ing engineer, Archie J. Weith, forme dir., Research, and Dev., Bakelite Co Union Carbide and Carbon Corp., an William Schack, former Editor o Plastics. Reinhold Publ. Co. $10.00.

The book gives the reader a complet coverage of extrusion as an importan processing operation. The first part o the book is devoted to the extrusion o plastics. The versatility of the extrud ing machine as an industrial unit i fully described and the many applica tions of extruded plastics are discussed The balance of the book deals with extrusion of metals (sheet, rods, billet etc.) and such material as rubber, food products, ceramics, graphite, and ice. A handy and valuable guide for those i the plastic field.

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**Highway Curves,** by the late Howard Chapin Ives, C.E. 4th ed. by Phili Kissam, Prof., C.E., Princeton University. John Wiley & Sons. $7.00.

This valuable little book made its pearance twenty years ago. Advances highway design have been spectacular ice that time. The fourth edition prents methods designed to simplify th the field operations and the mathe atical solutions. Many changes have en made and new copy added to bring e book strictly up to date. Practically e entire text, therefore has been reritten.

**ectrical Fundamentals of Communication,** by Arthur L. Albert, Prof., Communication Engrg., Oregon State College. McGraw-Hill Book Co. 2nd ed. $7.00.

This new second edition is designed imarily for students who are interted in studying electrical communicaon. It covers basic electrical fundaentals using explanations and illustraons taken from the communication ld. The book is well-balanced; conins some excellent illustrations and amples from all branches of comınication.

**asticity in Engineering,** by Ernest E. Sechler, Ph.D., Prof., Aeronautic, Calif. Inst. of Tech. John Wiley & Sons. $8.50.

This is the second book in the LCIT series (Guggenheim Aeronaual Laboratory, C.I.T.) to deal with oblems of structural analysis and sticity, and written primarily for gineers working in all fields of structal analysis. The author has compiled one volume the material of most erest to the engineer who needs a ad foundation based on the fundantal theories of stress and deforman of elastic bodies under load. To reviewer he has done an excellent

**dern Chemical Processes** Vol. 2 by ıe Editors "Industrial and Engineerıg Chemistry" in conjunction with chnical staffs of cooperating organiıtions.

his volume describes 24 recently developed chemical processes, all now in operation on a full-scale production level in the light of background, description of plant installation, description of process and operation of plant and economics of process, as well as personnel and future prospects, including technological improvement of the process and changes in the industrial picture. Both volumes of value as reference works to the practicing industrial chemist, the chemical engineer and the advanced student in these fields.

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**Electrical Measurements Manual,** C. H. Dunn and H. J. Barker, Assit. Profs., El. Engrg., Rensselaer Polytechnic Institute. Prentice-Hall, Inc. $4.35.

Suitable as a text for elementary laboratory courses in electrical measurements, presenting extensive treatment of laboratory techniques, and well-balanced laboratory experiments. An excellent textbook on the subject treated.

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**Guide to Sales Quota Setting,** John E. Ullman, M.S., Industrial Engineer. Chemonomics, Inc. $3.00.

A 64-page, lithoprint, paperbound book, one of the few thus far compiled, which methodically examines the use of sales quotas throughout industry. Purposes sales quota systems can serve, the types used and how they are applied is discussed by the author.

**Development of the Guided Missile,** Kenneth W. Gatland, Philosophical Library. $3.75.

The author has gathered together all the available facts on the evolution of guided missiles up to the present time and describes their possible future development. Some interesting material on rocket armament for aircraft is included.

**Communication of Technical Information,** Robert M. Dederich, $5.00. Technical Cooperation with Underdeveloped Countries. $5.00. Chemonomics, Inc.

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**Recurrent Electrical Transients,** by
W. Von Tersch, Dept. El. Eng
Iowa State College, and A. W. Swag
Prentice-Hall, Inc. $10.35.

Not intended to be a reference bo
on wave-shaping circuits, but to tea
a technique of analysis, while acquai
ing the reader with representative typ
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waveform may be considered as a seri
of recurring transients. Useful also
engineering graduates and technicia
familiarizing them with some of t
circuits which have come into wid
spread use in recent years.

**Methods and Problems of Flood Co**
**trol** in Asia and the Far East. Flo
Control Series No. 2, United Natio
$1.15. Columbia Univ. Press.

**Introduction to Hydraulics and Flu**
**Mechanics.** J. O. Jones, Prof., H
draulics, Univ. of Kansas. Harp
Brothers. $6.00.

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sis is primarily on fundamental
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y planned, well illustrated, with a
iety of problems.

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**tically Indeterminate Structures,**
Chu-Kai-Wang, Associate Prof., C.
., Univ. of Colorado. McGraw-Hill
ook Co. $7.50.

repared for the senior and first-year
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xt is well illustrated, extremely
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method of consistent deformation,
the three-moment equation, by the
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hods, and by the method of column
logy. Valuable reference work for
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**oduction to Number Theory,** Trygve
agell, Prof., Mathematics, Univer-
ty of Uppsala. John Wiley & Sons.

general, the book can be under-
d by anyone with a knowledge of
ege algebra, although a more com-
mathematical background will
e the book both easier and more re-
ding. 180 problems are included to
and extend the reader's knowledge
umber theory.

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**trical Engineering, The Theory and
aracteristics of Electrical Circuits
d Machinery,** Clarence V. Christie,
of., Electrical Engrg., McGill Univ.
ed. McGraw-Hill Book Co. $7.

excellent book by an authority,
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tudents in the low-frequency power
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d and a number of additional prob-
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**Industrial Process Control of Statistical Methods,** John D. Heide, Ind. Statistical Analyst, U.S. Rubber Co. McGraw-Hill Book Co. $6.00.

How to use statistics to control the quality of industrial products during the manufacturing process is the purpose of this excellent book by Heide. Mathematics are kept on as non-technical a level as possible, still the book tells in detail how to install a program of statistical quality control in the factory and how to operate and administer an established program.

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**Farm Power,** the late Ben D. Moses and Kenneth R. Frost. John Wiley and Sons, Inc. $5.75.

Both authors bring to this book many years of on-the-farm experience in addition to industrial and academic activities in agricultural engineering. Mr. Moses was professor of agricultural engineering at the University of California and served in the experiment station of the U. S. Department of Agriculture. Mr. Frost is assistant pro-

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Vhile this text is intended for use at “technical institute” level—above h school, engineering students will o find this book valuable because it arly presents the basic concepts so en lost in a maze of advanced mathetics. The book is the outgrowth of rses given by the author at the U.S. ast Guard Training Station at Gro-, Conn.

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Proceedings of the second annual conference on Industrial Research, sponsored by the Department of Industrial Engineering, Columbia University. The papers are indicative of the wide range of interest which now exists in this field. A helpful book, well arranged.

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The Wichert Truss.  
Continuous Bridges.

**Cutting Tool Materials,** by Eric N. Simons, Pitman Publishing Corpn. $4.50.

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**Heating, Ventilating, Air Conditioning Guide, 1952.** Am. Soc. Heating & Vent. Engrs. $7.50.

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**Electrical Measurements,** Forest K. Harris, Ph.D., Physicist, National Bureau of Standards. John Wiley & Sons, Inc. $8.

This book covers all necessary material from basic principles to applications within the field of d-c and low-frequency applications. The origins, relations, and dimensions of electrical units are discussed, and basic instrument theory is presented starting with the study of the galvanometer. The book offers a thorough, well-balanced, authoritative treatment of the subject.

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**Engineering Graphics,** John T. Rule, Head, Section of Graphics and Course in General Science and Engineering, M.I.T., and Earle F. Watts, late prof., Section of Graphics, M.I.T. 1st Ed. McGraw-Hill. $3.75.

In their book the authors have presented the study of engineering drawing from both the analytical and representational viewpoints. A thorough and complete approach to graphics. A usable knowledge of principles is stressed rather than skilled draftsmanship. Engineering Graphics Workbook provides problems and worksheets for use with the text. 296 pp. $3.

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**Jet Aircraft Power Systems, Principles and Maintenance,** Jack V. Casamassa Dir., Engine Dept., Academy of Aeronautics, LaGuardia Field, New York McGraw-Hill, Inc. $5.50.

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**Technical Libraries, Their Organizatio and Management,** Lucille Jackso Editor. Special Libraries Associatio $6.

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ministration are omitted. The book
rves to explain a library service, and
ovides a reference source of bibli-
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**troduction to the Study of Aircraft
Vibration and Flutter,** Robert H.
Scanlan, Assoc. Prof., Aeronautical
Engrg., Rensselaer Polytechnic, and
Robert Rosenbaum, Chief, Dynamics
and Loads, Airframe and Equipment
Engrg. Branch, Civil Aeronautics
Adm. The MacMillan Co. $7.50.

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aduate engineering students who elect
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s deal with basic material, and serves
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**ementary Problems in Engineering,**
H.W. Leach, Prof., Engrg., Tarleton
State College, and George C. Beakley,
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**draulic Transients,** George R. Rich,
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**The Conduction of Electricity Through Gases,** K. G. Emeléus, Prof. of Physics, Queen's Univ., Belfast. Methuen & Co. $1.50.

The author attempts to give an outline of the main phenomena which can be studied quantitatively in connection with the passage of electricity through gases at low pressures, in particular those associated with the glowing discharge. Considerable use is made of the monographs and papers mentioned in the Appendix.

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**Nature of Polyphase Induction Machines,** Philip L. Alger, Consulting Engr., General Electric Co. John Wiley & Sons. $7.50.

This is one of a series written by General Electric authors for the advancement of engineering knowledge, and reflects the author's thirty years of experience in the design of electric motors and generators. The polyphase induction motor is the workhorse of American industry. An excellent and highly instructive book on the subject.

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**Introduction to Servomechanisms,** A. Porter, M.Sc., Ph.D., Head, Research Dept., Ferranti Electric Ltd., Toronto. Methuen & Co. John Wiley & Sons. $1.75.

A Methuen Monograph, based on a course of lectures given at the Military College of Science, Shrivenham, to Army Officer students taking engineering physics.

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**Equivalent Circuits of Electric Machinery,** Gabriel Kron, Consulting Engineer, General Electric Co. John Wiley & Sons. $10.

One of the most important books of the General Electric program and the first book written in any language on equivalent circuits in general and on equivalent circuits of electric machinery in particular. Practically all of the material is original with the author, who needs no introduction to those engineers who are interested in the scientific development of equivalent circuits. An outstanding book, that should be in the library of every engineer in this particular field.

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**By Casey and Perry**

**Reinhold Publishing Corporation. $10.00**

The primary purpose of this book is to furnish sufficient information to permit the application of punch-card techniques to individual problems and needs of the individual scientist, engineer, or other technologist, whether in the laboratory, field, industrial plant, library, school or executive office.

Another purpose of this book is to record present knowledge and experience so that better use of the presently available punched-card devices, and design of devices better suited to practical needs, will be stimulated.

The hand-sorted edge-punched cards are discussed in greater detail than the machine-sorted cards. The book serves as an operating instruction manual for the edge-punched cards.

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Part III discusses fundamental problems involved in applying punched-card techniques to intellectual activities.

Part IV is a study as to the role that punched-cards and related devices may eventually play in relationship to other methods for copying with information problems.

Part V is a bibliography on uses of punched-cards in connection with scientific information.

The chapters are written by various authors. Recognition is given the American Chemical Society, the various punched-card companies whose products are mentioned, the Carnegie Foundation, and the W. A. Sheaffer Pen Co., and others.

**Aircraft Jet Powerplants,** Franklin P. Durham, Asist. Prof., Aeronautical Engineering, Univ. of Colorado. Prentice-Hall, Inc. $6.65.

A short course in overall jet propulsion and gas turbine principles is given in the first six chapters, followed by a study of jet engine components—the inlet diffuser, compressor, combustion chamber, and jet nozzle; fundamentals of ramjets and rockets.

**Dimensional Analysis and Theory of Models,** Henry L. Langhaar, Prof., Theoretical and Applied Mechanics, Univ. of Illinois. John Wiley & Sons. $4.

The author gives a systematic and thorough treatment of the principles of dimensional analysis in his new book. Applications of dimensional analysis abound in nearly all fields of engineering, particularly in fluid mechanics and in heat-transfer theory. Professor Langhaar's book serves as an excellent text in this field.

**Engineering and Western Civilization,** James Kip Finch, Renwick Prof., C.E. Dean Emeritus, School of Engrg. Columbia Univ. McGraw-Hall Books, Inc. $5.

The history of engineering is outlined from the earliest beginnings, some fifty centuries ago, to modern times. The relationships between engineering advances and accompanying economic and social progress are clearly drawn.

**Strength of Materials,** Glen N. Cox, Prof., Hydraulics and Mechanics, New York Univ,; Frank J. Germano, Prof. of Engrg. Mechanics, La. State Univ. and John H. Bateman, Prof., Civil Engrg., La. State Univ. Pitman Publishing Corpn. $5.50.

Written for use in the first course of strength of materials. Particular effort has been made to bring the text up to date in every respect, and considerable library research has been made to be sure that the treatment of such topics as riveted connections, column action, repeated stress, stress concentration, and others is compatible with laboratory experience. Latest building codes have been freely consulted.